

Remarks

Based on the amendments to the claims presented above and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Applicant respectfully requests that the Examiner enter the foregoing amendments after final action. The amendments accommodate the Examiner's requirement, at page 2 of the Office Action, to cancel, amend or rewrite claims 58 and 62 to comply with 37 C.F.R. § 1.75(c). Furthermore, the amendments place the application in better form for allowance or appeal by materially reducing or simplifying the issues for appeal. The amendments do not raise new issues that would require further consideration and/or search. In addition, the amendments do not raise the issue of new matter, and the amendments do not present additional claims without cancelling a corresponding number of finally rejected claims.

I. Status of the Claims

Upon entry of the foregoing amendments, claims 43-57, 59-61, 63 and 64 are pending, with claims 43 and 63 being the independent claims. New claims 63 and 64 are presented. Claims 58 and 62 are sought to be cancelled without prejudice to or disclaimer of the subject matter therein.

II. Support for the New Claims

The amendments find support throughout the specification and in the claims as filed.

III. Summary of the Office Action

In the Office Action dated November 20, 2002, the Examiner made one objection to and three rejections of the claims. Applicant respectfully offers the following remarks to overcome the objection and rejections.

IV. The Objection to Claims 58 and 62 under 37 C.F.R. § 1.75

In the Office Action at page 2, the Examiner has objected to claims 58 and 62, under 37 C.F.R. § 1.75, as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant respectfully traverses the objection. However, in order to expedite the allowance of the present application, claims 58 and 62 have been cancelled, thus rendering moot this objection. New claim 63 presents claim 58 in independent form and new claim 64 presents claim 62 as a dependent of claim 63. Withdrawal of the objection is respectfully requested.

V. The Rejection of Claims 43-56, 58-60 and 62 under 35 U.S.C. § 103(a) As Being Unpatentable Over the 1995-1996 Life Technologies Catalogue Must be Withdrawn

In the Office Action at pages 2-4, the Examiner has rejected claims 43-56, 58-60 and 62 under 35 U.S.C. § 103(a) as being unpatentable over Life Technologies Catalogue (Feb. 1995-1996). Applicant respectfully traverses the rejection.

Claim 43 is an independent claim from which claims 44-57 and 59-61 depend. Claim 43 is drawn to a composition comprising DNA fragments of different lengths, wherein fragments of each length are present in an amount that produces bands of

substantially equal intensity after the composition is separated by gel electrophoresis and stained with a detectable label.

MPEP 2143.03 (February 2003), at page 2100-128, right-hand column, reads that "[t]o establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." (citing *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)). Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case for the obviousness of the presently claimed invention and respectfully requests reconsideration and withdrawal of this rejection.

The Life Technologies Catalogue does not, as the Examiner asserts in paragraph 7 at page 3 of the Office Action, disclose compositions that produce bands of substantially the same intensity when separated by gel electrophoresis and stained. A careful examination of the DNA ladders on pages 14-2 through 14-4 of the Life Technologies Catalogue reveals bands of varying intensities within each ladder.

Applicant also directs the Examiner's attention to Figure 2 and pages 21-22 of Applicant's application. Figure 2 illustrates the differences between the invention and various commercially available DNA ladders when analyzed by gel electrophoresis. Lane 2 contains the 1 kb ladder that was described as available from Life Technologies. The fragments smaller than 1 kb appear less intense than the 1018 bp increment bands. This is because the relative mass of each of these fragments (and thus the intensity of these bands when stained) decreases in proportion to its size. Also note that the 1,636 bp and 500 bp bands stain more intensely than do other bands in the ladder.

These ladders in the Life Technologies Catalogue do not teach or suggest the ladders of the current invention, which are comprised of bands of substantially equal

intensity after the composition is separated by gel electrophoresis and stained with a detectable marker. Applicant respectfully requests reconsideration and withdrawal of this rejection.

VI. The Rejection of Claims 57 and 61 under 35 U.S.C. § 103(a) As Being Unpatentable Over the 1995-1996 Life Technologies Catalogue in view of Lee Must be Withdrawn

In the Office Action at page 4, the Examiner has rejected claims 57 and 61 under 35 U.S.C. § 103(a) as being unpatentable over Life Technologies Catalogue (Feb. 1995-1996) as applied to claims 43-56, 58-60 and 62, and further in view of U.S. Patent 5,268,568 (Lee). Applicant respectfully traverses the rejection.

As stated above, the Life Technologies Catalogue does not disclose compositions that produce bands of substantially the same intensity when separated by gel electrophoresis and stained. The Lee reference does not cure the deficiencies of the Life Technologies Catalogue. Lee is cited only for the proposition that a dye mixture such as bromophenol blue or xylene cyanol FF is routinely added to DNA samples subjected to electrophoresis. Neither the Life Technologies Catalogue nor Lee, individually or in combination, teach or suggest all of the limitations of the invention as presently claimed.

In paragraph 14 at page 4 of the Office Action, the Examiner states that a kit comprising DNA ladders would have been an obvious commercial expedient requiring little, if any, additional effort on the part of the ordinary artisan.

Applicant respectfully asserts that it would not be obvious to one of ordinary skill to develop a kit comprising the DNA ladders of the claimed invention. Applicant respectfully requests reconsideration and withdrawal of this rejection.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read "Robert W. Esmond". The signature is fluid and cursive, with the first name "Robert" and last name "Esmond" clearly distinguishable.

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Version with markings to show changes made

Claims 58 and 62 have been cancelled, and new claims 63-64 have been added.